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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* RICHARD HUGH CLARK,  
GAUTAM TAVANAPPA KALGHATGI, and ELEANOR MAIR LINEY

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Appeal 2009-014635  
Application 10/511,127  
Technology Center 1700

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Before ERIC GRIMES, MICHAEL P. COLAIANNI, and BEVERLY A.  
FRANKLIN, *Administrative Patent Judges*.

ERIC GRIMES, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

This is an appeal under 35 U.S.C. § 134 involving claims to a method of increasing the cetane number of a gas oil product. The Examiner has

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

rejected the claims for obviousness and obviousness-type double patenting. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

#### STATEMENT OF THE CASE

The Specification states that “[c]ommercially available blends of petroleum derived gas oil and Fischer-Tropsch derived gas oil are known. . . . From various publications it is assumed that the cetane number of the final blend will comply with linear blending rules.” (Spec. 1.) The Specification states that, however, “the addition of a certain volume of Fischer-Tropsch derived gas oil to a petroleum derived gas oil results in a higher cetane number than would be expected based on linear blending rules” (*id.* at 2-3).

Claims 1-8 are on appeal. The claims have not been argued separately and therefore stand or fall together. 37 C.F.R. § 41.37(c)(1)(vii). Claim 1 is representative and reads as follows:

1. A method of increasing the cetane number of a gas oil product based on a petroleum derived gas oil to a target cetane number Y comprising: adding to the petroleum derived gas oil a volume amount of a Fischer-Tropsch derived gas oil having a higher cetane number B, than the petroleum derived gas oil of cetane number, A, wherein the volume amount of added Fischer-Tropsch derived gas oil is less than the volume amount which would be added if linear blending is assumed.

The claims stand rejected as follows:

• Claims 1-8 under 35 U.S.C. § 103(a) as obvious in view of Suppes<sup>2</sup> or Berlowitz<sup>3</sup> (Ans. 3) and

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<sup>2</sup> Suppes, US 6,056,793, May 2, 2000

<sup>3</sup> Berlowitz et al., US 6,663,767 B1, Dec. 16, 2003

- Claim 1 for obviousness-type double patenting based on claim 20 of U.S. Patent 7,189,269 (Ans. 3).

I.

*Issue*

The Examiner has rejected claims 1-8 as obvious in view of either Suppes or Berlowitz. Because we conclude that Berlowitz supports the rejection, we need not address the alternative basis of the rejection.

The Examiner finds that Berlowitz discloses “a diesel fuel blended fuel composition which comprises an undercut conventional diesel fuel and a Fischer-Tropsch derived diesel fuel” (Ans. 4) and therefore would have made obvious the claimed method, which merely requires adding a volume amount of a Fischer-Tropsch derived gas oil to a petroleum-derived gas oil (*id.* at 5). The Examiner concludes that the “wherein” clause of claim 1 does not distinguish the claimed process from Berlowitz’s “since the blending components and the amount of each component may be the same” (*id.*).

Appellants contend that “Berlowitz does not teach applicants['] claimed invention which is a very specific method of increasing the cetane number of a gas oil product which involves adding less than a particular amount of Fischer-Tropsch derived gas oil which would be added if linear blending is assumed” (Appeal Br. 4).

The issue with respect to this rejection is: Does the recitation in claim 1 that “the volume amount of added Fischer-Tropsch derived gas oil is less than the volume amount which would be added if linear blending is assumed” distinguish the claimed method from the method disclosed by Berlowitz?

*Findings of Fact*

1. Berlowitz discloses “a blended fuel, useful as diesel fuel, wherein the fuel blend contains an undercut conventional diesel fuel, blended with a Fischer-Tropsch derived diesel fuel. . . . The resultant diesel fuel blend is characterized by . . . Cetane number >50, preferably >55, more preferably >60.” (Berlowitz, col. 2, ll. 17-41.)

2. Berlowitz discloses that the Fischer-Tropsch derived component of its blended fuel has a cetane number of at least 65, preferably at least 70 (*id.* at col. 4, ll. 49-59).

3. Berlowitz provides a working example in which equal parts of a conventional diesel fuel and a heavy Fischer-Tropsch diesel fuel were blended; the resulting blend had a cetane number of 61.5 (*id.* at col. 6, ll. 27-29 and 45).

4. The Specification provides a working example in which a petroleum-derived gas oil with a cetane number of 51.1 is mixed with a Fischer-Tropsch derived gas oil with a cetane number of either 77.3 (FT1) or 75.8 (FT2) (Spec. 9-10).

5. The Specification discloses that a 50/50 mixture of the petroleum-derived gas oil and FT1 has a cetane number of 69.3 (*id.* at 11, Table 2, third line) a 50/50 mixture of the petroleum-derived gas oil and FT2 has a cetane number of 65.4 (*id.* at 11, Table 3, third line).

*Analysis*

Claim 1 is directed to a method of increasing the cetane number of a petroleum-derived gas oil by blending it with a Fischer-Tropsch-derived gas oil. Berlowitz discloses mixing a petroleum-derived conventional diesel fuel with a Fischer-Tropsch-derived diesel fuel. Berlowitz discloses that the

Fischer-Tropsch-derived fuel has a cetane number of at least 65 and the final blend has a cetane number of greater than 50. Since the cetane number of the final blend depends on the cetane number of both fuel components, it is reasonable to conclude that the cetane number of the blend is higher than the cetane number of the petroleum-derived component; i.e., the cetane number of the petroleum-derived component is increased when it is blended with the Fischer-Tropsch-derived component.

Appellants argue that the claimed process differs from Berlowitz's because the claim requires "adding less than a particular amount of Fischer-Tropsch derived gas oil which would be added if linear blending is assumed" (Appeal Br. 4). That is, Appellants argue that the "wherein" clause of claim 1 distinguishes the claimed process from that of Berlowitz.

We do not agree with Appellants' interpretation of the claim language. As the Examiner has correctly pointed out, the claimed method requires only the single step of blending a petroleum-derived gas oil and a Fischer-Tropsch-derived gas oil. The claim does not limit the *amounts* of the two components that are mixed, which will depend on the cetane numbers of the starting materials and the target cetane number of the final blend.

As one example, the Specification describes blending equal parts of a petroleum-derived gas oil and a Fischer-Tropsch-derived gas oil to make a product with a cetane number of 65.4 (FF 5). Berlowitz describes blending equal parts of a petroleum-derived fuel and a Fischer-Tropsch-derived fuel to make a product with a cetane number of 61.5 (FF 3). Although Berlowitz's product has a slightly lower cetane number than the one exemplified in the Specification, the *process* described by Berlowitz

includes the only active step required by claim 1 on appeal. That is, while Appellants might carry out the process described by Berlowitz with an intention of achieving a product with a different cetane number, the two processes themselves are the same. The “wherein” clause of claim 1 does not impose any additional limitation on how the claimed process is carried out.

Appellants also repeat in the Appeal Brief the limitations of claims 2 and 3 but do not provide any argument based on those limitations (Appeal Br. 4-5). “A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim.” 37 C.F.R. § 41.37(c)(1)(vii).

### *Conclusion of Law*

The recitation in claim 1 that “the volume amount of added Fischer-Tropsch derived gas oil is less than the volume amount which would be added if linear blending is assumed” does not distinguish the claimed method from the method disclosed by Berlowitz.

## II.

The Examiner has rejected claim 1 for obviousness-type double patenting on the basis that the claimed process is not patentably distinct from that of claim 20 of the ‘269 patent (Ans. 3).

Appellants contend that claim 1 is directed to “a very specific method of increasing the cetane number of a gas oil product which involves adding less than a particular amount of Fischer-Tropsch derived gas oil” (Appeal Br. 4). As discussed above in the context of obviousness, however, the method defined by claim 1 requires only a single step: blending a

petroleum-derived gas oil and a Fischer-Tropsch-derived gas oil, and is not limited to mixing particular amounts of the two components.

Claim 20 of the '269 patent reads as follows: "20. A process for the preparation of a fuel composition, said process comprising blending a Fischer-Tropsch derived gas oil (ii) and an oxygenate (iii) with a base fuel (i)" ('269 patent, col. 18, ll. 4-6). The '269 patent defines a base fuel as including "petroleum derived gas oils" (*id.* at col. 5, ll. 1-3).

We agree with the Examiner that the '269 patent's claim 20 includes the step of blending a petroleum-derived gas oil and a Fischer-Tropsch-derived gas oil, along with an oxygenate, and therefore includes the sole step required by instant claim 1. In effect, the '269 patent's claim 20 is a species encompassed by instant claim 1. "[A] later genus claim limitation is anticipated by, and therefore not patentably distinct from, an earlier species claim." *Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d 955, 971 (Fed. Cir. 2001). We affirm the rejection of claim 1 based on obviousness-type double patenting.

#### SUMMARY

We affirm the rejection of claims 1-8 as obvious in view of Berlowitz and the rejection of claim 1 for obviousness-type double patenting.

#### TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

#### AFFIRMED



Appeal 2009-014635  
Application 10/511,127

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